

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (currently amended) A regasification plant comprising:
a first and a second pump fluidly coupled to an LNG source and configured to deliver respective first and second liquid portions of liquefied natural gas at respective first and second pressures, wherein the first pressure is at least 1000 psig greater than the second pressure;
a heat source that is cooled by a refrigeration content of [[a]] the first liquid portion of [[a]] the liquefied natural gas and thereby heats the first liquid portion of the liquefied natural gas to thereby form a heated first vapor portion having a temperature of at least 125 °F and a pressure of at least 1450 psig,
and further comprising an expander in which the heated first vapor portion is expanded as a working fluid to produce electric power and an expanded first vapor portion, and further comprising a demethanizer that is configured to receive the expanded first vapor portion and [[a]] the second liquid portion of the liquefied natural gas, wherein the demethanizer is further configured to produce a lean gas and a demethanized bottom product.
2. (original) The plant of claim 1 wherein the heat source comprises a combined cycle power plant.
3. (canceled)
4. (previously presented) The plant of claim 1 wherein the lean gas is compressed using at least part of the work provided by the expander.
5. (previously presented) The plant of claim 1 wherein the demethanized bottom product is fed to a deethanizer that produces an ethane product and a liquefied petroleum gas product.
6. (original) The plant of claim 5 wherein the ethane product is employed as a fuel in the combined cycle power plant or petrochemical plant feedstock.

7. (previously presented) The plant of claim 5 wherein reflux condenser duty of the deethanizer is provided by the refrigeration content of the first liquid portion of the liquefied natural gas before the heat source heats the liquefied natural gas.
8. (canceled)
9. (previously presented) The plant of claim 1 wherein the second liquid portion and the first liquid portion have a ratio of between about 0.4 to 0.7.
10. (currently amended) A regasification plant comprising a liquid natural gas feed that is split in a first portion having a first pressure and a second portion having a second pressure, wherein the first pressure is at least 1000 psig greater than the second pressure, wherein a refrigeration content of the first portion cools a heat source in the plant to generate a heated first portion having a temperature of at least 125 °F and a pressure of at least 1450 psig, wherein the heated first portion is expanded as a working fluid to produce electric power before entering a demethanizer as a demethanizer feed, and wherein the second portion is used as a reflux stream for the demethanizer, wherein the demethanizer is configured to produce a lean gas, and wherein the plant further comprises a compressor that is configured to compress the lean gas to pipeline pressure.
11. (original) The plant of claim 10 in which the first portion is expanded in an expander to produce work.
12. (previously presented) The plant of claim 11 wherein the compressor is configured to use the work provided by the expander.
13. (original) The plant of claim 10 further comprising a deethanizer, and wherein the first portion provides reflux condenser duty for the deethanizer before the first portion is heated and expanded.
14. (original) The plant of claim 13 wherein the demethanizer produces a bottom product that is fed to the deethanizer, and wherein the deethanizer produces a liquefied petroleum gas product and an ethane product.

15. (original) The plant of claim 14 wherein the ethane product is combusted as a turbine fuel in a combined cycle power plant.
16. (withdrawn) The plant of claim 10 wherein heating of the first portion is provided by a heat transfer fluid that receives heat from at least one of a gas turbine inlet air stream, a heat recovery unit, and a flue gas stream.
17. (currently amended) A regasification plant comprising a regasification unit operationally coupled to a combined cycle power unit, wherein a refrigeration content in a first portion of liquefied natural gas cools a heat source in the combined cycle power unit to thereby produce a heated liquefied natural gas having a temperature of at least 125 °F and a pressure of at least 1450 psig, wherein a lean liquefied natural gas produced from the heated liquefied natural gas is compressed using power produced by expansion of the heated liquefied natural gas, [[and]] wherein the heated liquefied natural gas is expanded in an expander as a working fluid to produce electric power, wherein a second portion of liquefied natural gas is fed to a demethanizer, and wherein a pressure of the first portion is at least 1000 psig greater a pressure of the second portion.
18. (previously presented) The plant of claim 17 wherein the regasification unit provides a combustion fuel to the combined cycle power unit, wherein the combustion fuel is prepared from the liquefied natural gas.
19. (currently amended) The plant of claim 17 wherein [[a]] the demethanizer produces the processed liquefied natural gas, and wherein the second portion of liquefied natural gas is a reflux stream of the demethanizer.
20. (previously presented) The plant of claim 19 wherein the demethanizer provides a demethanized bottom product to a deethanizer, and wherein the deethanizer provides an ethane product as the combustion fuel.